

under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Claims:

Please cancel claims 22-33, 35-51, 53, 55-70, 72, 75-81, 84-89, 92-105, 108-114, 118, 120-124, 126-141, 144-152, 156, 158-161, 165-173, 176-195, and 198-219 without prejudice or disclaimer.

Please add the following claims:

~~220~~¹. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide comprising an amino acid sequence at least 90% identical to amino acids 24 to 468 of SEQ ID NO:2;

wherein said polypeptide binds TNF-related apoptosis-inducing ligand (TRAIL).

E1 ~~221~~². (New) The polynucleotide of claim ~~220~~¹, wherein said amino acid sequence is at least 95% identical to amino acids 24 to 468 of SEQ ID NO:2.

~~222~~³. (New) The polynucleotide of claim ~~220~~¹, wherein said polypeptide induces apoptosis.

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~~4~~
223. (New) The polynucleotide of claim ~~1~~ 220, further comprising a heterologous polynucleotide.

~~5~~
224. (New) The polynucleotide of claim ~~4~~ 223, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

~~6~~
225. (New) The polynucleotide of claim ~~5~~ 224, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

~~7~~
226. (New) The polynucleotide of claim ~~6~~ 225, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

~~8~~
227. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~1~~ 220 into a vector.

~~9~~
228. (New) A vector comprising the polynucleotide of claim ~~1~~ 220.

~~10~~
229. (New) The vector of claim ~~9~~ 228, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~11~~
230. (New) A host cell comprising the polynucleotide of claim ~~1~~ 220.

E1
Cont.

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¹²
~~231~~. (New) The host cell of claim ~~230~~¹¹, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹³
~~232~~. (New) (**Non-Elected**) A method of using the host cell of claim ~~230~~¹¹ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

¹⁴
~~233~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~220~~, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

E1
Cont.
¹⁵
~~234~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 24 to 468 of SEQ ID NO:2, wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at ~~42~~⁴²°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
 - (b) washing at 65°C in a solution consisting of 0.1x SSC.
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~~16~~
~~233.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

~~19~~
~~236.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said second nucleic acid encodes amino acids 2 to 468 of SEQ ID NO:2.

~~17~~
~~237.~~ (New) The polynucleotide of claim ~~16~~ 235, wherein said second nucleic acid encodes amino acids 1 to 468 of SEQ ID NO:2.

~~18~~
~~238.~~ (New) The polynucleotide of claim ~~17~~ 237, wherein said second nucleic acid is SEQ ID NO:1.

~~20~~
~~239.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

~~25~~
~~240.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said first nucleic acid encodes a polypeptide which induces apoptosis.

~~26~~
~~241.~~ (New) The polynucleotide of claim ~~15~~ 234, further comprising a heterologous polynucleotide.

~~27~~
~~242.~~ (New) The polynucleotide of claim ~~26~~ 241, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

E1
Cont.

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~~28~~
~~243.~~ (New) The polynucleotide of claim ~~242~~²⁷, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

~~29~~
~~244.~~ (New) The polynucleotide of claim ~~243~~²⁸, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

~~30~~
~~245.~~ (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~234~~¹⁵ into a vector.

~~31~~
~~246.~~ (New) A vector comprising the polynucleotide of claim ~~234~~¹⁵.

~~32~~
~~247.~~ (New) The vector of claim ~~246~~²⁷, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~33~~
~~248.~~ (New) A host cell comprising the polynucleotide of claim ~~234~~¹⁵.

~~34~~
~~249.~~ (New) The host cell of claim ~~248~~²⁹, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

~~22~~
~~250.~~ (New) A host cell comprising the polynucleotide of claim ~~239~~²⁰.

~~23~~
~~251.~~ (New) The host cell of claim ~~250~~²², wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

E1
cont.

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²⁴
~~252~~. (New) **(Non-Elected)** A method of using the host cell of claim ²²~~250~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

²¹
~~253~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ²⁰~~259~~, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

³⁵
~~254~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes amino acids 24 to 468 of SEQ ID NO:2.

E1
Cont.
³⁶
~~255~~. (New) The polynucleotide of claim ³²~~254~~, which comprises nucleotides 88 to 1422 of SEQ ID NO:1.

³⁷
~~256~~. (New) The polynucleotide of claim ³²~~254~~, wherein said nucleic acid encodes amino acids 2 to 468 of SEQ ID NO:2.

³⁸
~~257~~. (New) The polynucleotide of claim ³⁴~~256~~, which comprises nucleotides 22 to 1422 of SEQ ID NO:1.

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³⁹
~~258~~ (New) The polynucleotide of claim ³⁷~~256~~, wherein said nucleic acid encodes amino acids 1 to 468 of SEQ ID NO:2.

⁴⁰
~~259~~ (New) The polynucleotide of claim ³⁸~~258~~, which comprises nucleotides 19 to 1422 of SEQ ID NO:1.

⁴¹
~~260~~ (New) The polynucleotide of claim ³⁹~~259~~ which comprises SEQ ID NO:1.

⁴²
~~261~~ (New) The polynucleotide of claim ³⁵~~254~~, which encodes a polypeptide which binds TRAIL.

⁴³ ⁴⁶
~~262~~ (New) The polynucleotide of claim ³⁵~~254~~, which encodes a polypeptide which induces apoptosis.

⁴⁷
~~263~~ (New) The polynucleotide of claim ³⁵~~254~~, further comprising a heterologous polynucleotide.

⁴⁸
~~264~~ (New) The polynucleotide of claim ⁴⁷~~263~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

⁴⁹
~~265~~ (New) The polynucleotide of claim ⁴⁸~~264~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

E1
Cont.

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³⁰
~~266~~. (New) The polynucleotide of claim ⁴⁹~~265~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

⁵¹
~~267~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ³⁵~~254~~ into a vector.

⁵²
~~268~~. (New) A vector comprising the polynucleotide of claim ³⁵~~254~~.

⁵³
~~269~~. (New) The vector of claim ⁵²~~268~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

⁵⁴
~~270~~. (New) A host cell comprising the polynucleotide of claim ³⁵~~254~~.

⁵⁵
~~271~~. (New) The host cell of claim ⁵⁴~~270~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁴³
~~272~~. (New) A host cell comprising the polynucleotide of claim ⁴²~~261~~.

⁴⁴
~~273~~. (New) The host cell of claim ⁴³~~272~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁴⁵
~~274~~. (New) **(Non-Elected)** A method of using the host cell of claim ⁴³~~272~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a

E1
Cont.

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35 (New) A method of producing a polypeptide encoded by the nucleic acid
254
of claim 35, comprising:

- 57
27/6. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide comprising an amino acid sequence at least 90% identical to amino acids 24 to 238 of SEQ ID NO:2;

~~58~~ 277. (New) The polynucleotide of claim ~~57~~ 276, wherein said amino acid sequence is at least 95% identical to amino acids 24 to 238 of SEQ ID NO:2.

⁵⁹
278. (New) The polynucleotide of claim ⁶⁷276, further comprising a heterologous polynucleotide.

⁶⁰
~~279~~. (New) The polynucleotide of claim ⁵⁹~~278~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

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⁶⁰
~~280.~~ (New) The polynucleotide of claim ~~279~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

⁶¹
~~281.~~ (New) The polynucleotide of claim ~~280~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

⁶³
~~282.~~ (New) A method of producing a vector that comprises inserting the polynucleotide of claim ⁵⁷~~276~~ into a vector.

⁶⁴
~~283.~~ (New) A vector comprising the polynucleotide of claim ⁵⁷~~276~~.

⁶⁵
~~284.~~ (New) The vector of claim ⁶⁴~~283~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

⁶⁶
~~285.~~ (New) A host cell comprising the polynucleotide of claim ⁵⁷~~276~~.

⁶⁷
~~286.~~ (New) The host cell of claim ⁶⁶~~285~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁶⁸
~~287.~~ (New) **(Non-Elected)** A method of using the host cell of claim ⁶⁷~~286~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

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Cont.

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⁶⁹
~~288~~. (New) A method of producing the polypeptide encoded by the
⁵⁷
polynucleotide of claim ~~27~~6, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

⁷⁰
~~289~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 24 to 238 of SEQ ID NO:2, wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

E1 cont.
⁷¹
290. (New) The polynucleotide of claim ⁷⁰~~289~~, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

⁷²
291. (New) The polynucleotide of claim ⁷⁰~~289~~, wherein said second nucleic acid encodes amino acids 2 to 238 of SEQ ID NO:2.

⁷³
~~292~~. (New) The polynucleotide of claim ⁷²~~291~~, wherein said second nucleic acid encodes amino acids 1 to 238 of SEQ ID NO:2.

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⁷⁴
~~293~~. (New) The polynucleotide of claim ~~289~~⁷⁰, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

⁷⁹
~~294~~. (New) The polynucleotide of claim ~~289~~⁷⁰, further comprising a heterologous polynucleotide.

⁸⁰
~~295~~. (New) The polynucleotide of claim ~~294~~⁷⁹, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

⁸¹
~~296~~. (New) The polynucleotide of claim ~~295~~⁸⁰, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

⁸²
~~297~~. (New) The polynucleotide of claim ~~296~~⁸¹, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

⁸³
~~298~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~289~~⁷⁰ into a vector.

⁸⁴
~~299~~. (New) A vector comprising the polynucleotide of claim ~~289~~⁷⁰.

⁸⁵
~~300~~. (New) The vector of claim ~~299~~⁸⁴, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

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E1
Cont.

⁸⁶
~~301~~. (New) A host cell comprising the polynucleotide of claim ~~289~~⁷⁹.

⁸⁷
~~302~~. (New) The host cell of claim ~~301~~⁸⁶, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁷⁵
~~303~~. (New) A host cell comprising the polynucleotide of claim ~~293~~⁷⁴.

⁷⁶
~~304~~. (New) The host cell of claim ~~303~~⁷⁵, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁷⁷
~~305~~. (New) **(Non-Elected)** A method of using the host cell of claim ~~303~~⁷⁵ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

⁷⁸
~~306~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~293~~⁷⁴, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

⁸⁸
~~307~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes amino acids 24 to 238 of SEQ ID NO:2.

E1
Cont.

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~~89~~ 308. (New) The polynucleotide of claim ~~307~~, which comprises nucleotides 88 to 732 of SEQ ID NO:1.

~~90~~ 309. (New) The polynucleotide of claim ~~307~~, wherein said nucleic acid encodes amino acids 2 to 238 of SEQ ID NO:2.

~~91~~ 310. (New) The polynucleotide of claim ~~309~~, which comprises nucleotides 22 to 732 of SEQ ID NO:1.

~~92~~ 311. (New) The polynucleotide of claim ~~309~~, wherein said nucleic acid encodes amino acids 1 to 238 of SEQ ID NO:2.

~~93~~ 312. (New) The polynucleotide of claim ~~311~~, which comprises nucleotides 19 to 732 of SEQ ID NO:1.

~~94~~ 313. (New) The polynucleotide of claim ~~307~~, wherein said nucleic acid encodes a polypeptide which binds TRAIL.

~~98~~ 314. (New) The polynucleotide of claim ~~307~~, further comprising a heterologous polynucleotide.

~~99~~ 315. (New) The polynucleotide of claim ~~314~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

E1
Cont.

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¹⁰⁰
3/6. (New) The polynucleotide of claim ⁹⁹3/5, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹⁰¹
3/7. (New) The polynucleotide of claim ¹⁰⁰3/6, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹⁰²
3/8. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ⁸⁸3/7 into a vector.

¹⁰³
3/9. (New) A vector comprising the polynucleotide of claim ⁸⁸3/7.

¹⁰⁴
3/20. (New) The vector of claim ¹⁰³3/9, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁰⁵
3/21. (New) A host cell comprising the polynucleotide of claim ⁸⁴3/7.

¹⁰⁶
3/22. (New) The host cell of claim ¹⁰⁵3/21, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

⁹⁵
3/23. (New) A host cell comprising the polynucleotide of claim ⁹⁴3/3.

⁹⁶
3/24. (New) The host cell of claim ⁹⁵3/23, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

E1
Cont.

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(New) **(Non-Elected)** A method of using the host cell of claim 324 to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

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(New) A method of producing a polypeptide encoded by the nucleic acid of claim 307, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

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327

(New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 239-264 of SEQ ID NO:2; wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

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(New) The polynucleotide of claim 327, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

E1
Cont.

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¹¹⁰
~~329~~. (New) The polynucleotide of claim ~~328~~¹⁰⁹, wherein said first nucleic acid encodes amino acids 239 to 264 of SEQ ID NO:2.

¹¹¹
~~330~~. (New) The polynucleotide of claim ~~329~~¹¹⁰, wherein said first nucleic acid comprises nucleotides 733 to 810 of SEQ ID NO:1.

¹¹²
~~331~~. (New) The polynucleotide of claim ~~327~~¹⁰⁸, further comprising a heterologous polynucleotide.

¹¹³
~~332~~. (New) The polynucleotide of claim ~~331~~¹¹², wherein said heterologous polynucleotide encodes a heterologous polypeptide.

¹¹⁴
~~333~~. (New) The polynucleotide of claim ~~332~~¹¹³, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹¹⁵
~~334~~. (New) The polynucleotide of claim ~~333~~¹¹⁴, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹¹⁶
~~335~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~327~~¹⁰⁸ into a vector.

¹¹⁷
~~336~~. (New) A vector comprising the polynucleotide of claim ~~327~~¹⁰⁸.

E1
cont

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337. (New) The vector of claim 336, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

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118

338. (New) A host cell comprising the polynucleotide of claim 337.

120

119

339. (New) The host cell of claim 338, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

121

340. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide at least 90% identical to amino acids 265 to 468 of SEQ ID NO:2; wherein a DR4 variant consisting of amino acids 24 to 468 of SEQ ID NO:2, with the exception that amino acids 265-468 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

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341. (New) The polynucleotide of claim 340, wherein said polypeptide is at least 95% identical to amino acids 265 to 468 of SEQ ID NO:2.

123

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342. (New) The polynucleotide of claim 341, which encodes amino acids 265 to 468 of SEQ ID NO:2.

124

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343. (New) The polynucleotide of claim 342, which comprises nucleotides 811 to 1422 of SEQ ID NO:1.

E1
Cont.

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¹²⁵
~~344~~. (New) The polynucleotide of claim ~~340~~¹²¹, further comprising a heterologous polynucleotide.

¹²⁶
~~345~~. (New) The polynucleotide of claim ~~344~~¹²⁵, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

¹²⁷
~~346~~. (New) The polynucleotide of claim ~~345~~¹²⁶, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹²⁸
~~347~~. (New) The polynucleotide of claim ~~346~~¹²⁷, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹²⁹
~~348~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~340~~¹²¹ into a vector.

¹³⁰
~~349~~. (New) A vector comprising the polynucleotide of claim ~~340~~¹²¹.

¹³¹
~~350~~. (New) The vector of claim ~~349~~¹³⁰, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

¹³²
~~351~~. (New) A host cell comprising the polynucleotide of claim ~~340~~¹²¹.

E1
Cont

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¹³³
~~352~~. (New) The host cell of claim ~~351~~¹³², wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹³⁴
~~353~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~340~~¹³¹, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

¹³⁵
~~354~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 265 to 468 of SEQ ID NO:2; wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

¹³⁶
~~355~~. The polynucleotide of claim ~~354~~¹³⁵, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

¹³⁷
~~356~~. (New) The polynucleotide of claim ~~353~~¹³⁶, wherein said first nucleic acid encodes amino acids 265 to 468 of SEQ ID NO:2.

E1
Cont.

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¹³⁸
357. (New) The polynucleotide of claim ¹³⁷~~356~~, wherein said first nucleic acid comprises nucleotides 811 to 1422 of SEQ ID NO:1.

¹³⁹
~~358~~. (New) The polynucleotide of claim ¹³⁵~~354~~, wherein said first nucleic acid encodes a polypeptide, and wherein a DR4 variant consisting of amino acids 24 to 468 of SEQ ID NO:2, with the exception that amino acids 265-468 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

¹⁴³
~~359~~. (New) The polynucleotide of claim ¹³⁵~~354~~, further comprising a heterologous polynucleotide.

¹⁴⁴
~~360~~. (New) The polynucleotide of claim ¹⁴³~~359~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

¹⁴⁵
~~361~~. (New) The polynucleotide of claim ¹⁴⁴~~360~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹⁴⁶
~~362~~. (New) The polynucleotide of claim ¹⁴⁵~~361~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹⁴⁷
~~363~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ¹³⁵~~354~~ into a vector.

E1
Cont.

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¹⁴⁸
~~364~~. (New) A vector comprising the polynucleotide of claim ~~354~~. ¹³⁵

¹⁴⁹
~~365~~. (New) The vector of claim ~~364~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence. ¹⁴⁸

¹⁵⁰
~~366~~. (New) A host cell comprising the polynucleotide of claim ~~364~~. ¹³⁵

¹⁵¹
~~367~~. (New) The host cell of claim ~~366~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence. ¹⁵⁰

¹⁴⁰
~~368~~. (New) A host cell comprising the polynucleotide of claim ~~358~~. ¹³⁹

¹⁴¹
~~369~~. (New) The host cell of claim ~~368~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence. ¹⁴⁰

¹⁴²
~~370~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~358~~, comprising: ¹³⁹

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

E1
Cont.

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¹⁵²
~~371~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide at least 90% identical to amino acids 379 to 422 of SEQ ID NO:2; wherein a DR4 variant consisting of amino acids 24 to 468 of SEQ ID NO:2, with the exception that amino acids 379 to 422 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

¹⁵³
~~372~~. (New) The polynucleotide of claim ~~371~~¹⁵², wherein said polypeptide is at least 95% identical to amino acids 379 to 422 of SEQ ID NO:2.

¹⁵⁴
~~373~~. (New) The polynucleotide of claim ~~372~~¹⁵³, which encodes amino acids 379 to 422 of SEQ ID NO:2.

¹⁵⁵
~~374~~. (New) The polynucleotide of claim ~~373~~¹⁵⁴, which comprises nucleotides 1153 to 1284 of SEQ ID NO:1.

¹⁵⁶
~~375~~. (New) The polynucleotide of claim ~~374~~¹⁵⁵, further comprising a heterologous polynucleotide.

¹⁵⁷
~~376~~. (New) The polynucleotide of claim ~~375~~¹⁵⁶, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

E1
Cont.

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¹⁵⁸
~~377~~. (New) The polynucleotide of claim ~~376~~¹⁵⁷, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹⁵⁹
~~378~~. (New) The polynucleotide of claim ~~377~~¹⁵⁸, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹⁶⁰
~~379~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~371~~¹⁵² into a vector.

¹⁶¹
~~380~~. (New) A vector comprising the polynucleotide of claim ~~371~~¹⁵².

¹⁶²
~~381~~. (New) The vector of claim ~~380~~¹⁶¹, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁶³
~~382~~. (New) A host cell comprising the polynucleotide of claim ~~371~~¹⁵².

¹⁶⁴
~~383~~. (New) The host cell of claim ~~382~~¹⁶³, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁶⁵
~~384~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~371~~¹⁵², comprising:

(a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and

E1
Cont.

90

E

(b) recovering said polypeptide.

~~146~~
~~385~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 379 to 422 of SEQ ID NO:2;

wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

(a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and

(b) washing at 65°C in a solution consisting of 0.1x SSC. ✓

~~167~~
~~386~~. (New) The polynucleotide of claim ~~385~~¹⁶⁸, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

E1
Cont.
~~168~~
~~387~~. (New) The polynucleotide of claim ~~386~~¹⁶⁷, wherein said first nucleic acid encodes amino acids 379 to 422 of SEQ ID NO:2.

~~169~~
~~388~~. (New) The polynucleotide of claim ~~387~~¹⁶⁸, wherein said first nucleic acid comprises nucleotides 1153 to 1284 of SEQ ID NO:1.

~~170~~
~~389~~. (New) The polynucleotide of claim ~~388~~¹⁶⁹, wherein said first nucleic acid encodes a polypeptide, and wherein a DR4 variant consisting of amino acids 24 to 468 of

91

E

SEQ ID NO:2, with the exception that amino acids 265-468 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

¹⁷⁴
~~390~~. (New) The polynucleotide of claim ~~385~~¹⁶⁶, further comprising a heterologous polynucleotide.

¹⁷⁵
~~391~~. (New) The polynucleotide of claim ~~390~~¹⁷⁴, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

¹⁷⁶
~~392~~. (New) The polynucleotide of claim ~~391~~¹⁷⁵, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹⁷⁷
~~393~~. (New) The polynucleotide of claim ~~392~~¹⁷⁶, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹⁷⁸
~~394~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~385~~¹⁶⁶ into a vector.

¹⁷⁹
~~395~~. (New) A vector comprising the polynucleotide of claim ~~385~~¹⁶⁶.

¹⁸⁰
~~396~~. (New) The vector of claim ~~395~~¹⁶⁶, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

E1
Cont

92

E

¹⁴¹
~~397~~. (New) A host cell comprising the polynucleotide of claim ~~385~~.

¹⁸²
~~398~~. (New) The host cell of claim ~~397~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁷¹
~~399~~. (New) A host cell comprising the polynucleotide of claim ~~389~~.

¹⁷²
~~400~~. (New) The host cell of claim ~~399~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁷³
~~401~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~389~~, comprising:

- E-1
Cont.
- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
 - (b) recovering said polypeptide.

¹⁸³
~~402~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide at least 90% identical to the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853, wherein said polypeptide binds TRAIL.

93

E

¹⁸¹
~~403~~. (New) The polynucleotide of claim ~~402~~¹⁸³, wherein said polypeptide is at least 95% identical to the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

¹⁸³
~~404~~. (New) The polynucleotide of claim ~~402~~¹⁸³, wherein said polypeptide induces apoptosis.

¹⁸⁶
~~405~~. (New) The polynucleotide of claim ~~402~~¹⁸³, further comprising a heterologous polynucleotide.

¹⁸⁷
~~406~~. (New) The polynucleotide of claim ~~405~~¹⁸⁶, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

¹⁸⁷
~~407~~. (New) The polynucleotide of claim ~~406~~¹⁸⁷, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

¹⁸⁹
~~408~~. (New) The polynucleotide of claim ~~407~~¹⁸⁸, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

¹⁹⁰
~~409~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~402~~¹⁸³ into a vector.

¹⁹¹
~~410~~. (New) A vector comprising the polynucleotide of claim ~~402~~¹⁸³.

E1
Cont.

94

E

¹⁹²
~~411~~. (New) The vector of claim ~~410~~¹⁹¹, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁹³
~~412~~. (New) A host cell comprising the polynucleotide of claim ~~402~~¹⁸³.

¹⁹⁴
~~413~~. (New) The host cell of claim ~~412~~¹⁹³, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

¹⁹⁵
~~414~~. (New) **(Non-Elected)** A method of using the host cell of claim ~~413~~¹⁹⁴ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

¹⁹⁶
~~415~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~402~~¹⁸³, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

¹⁹⁷
~~416~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853;

E1
Cont

95

E

wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

¹⁹⁸
417. (New) The polynucleotide of claim ¹⁹⁷416, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

¹⁹⁹
418. (New) The polynucleotide of claim ¹⁹⁷416, wherein said second nucleic acid encodes the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

E1
Cont
²⁰⁰
419. (New) The polynucleotide of claim ¹⁹⁷416, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

²⁰⁵
420. (New) The polynucleotide of claim ¹⁹⁷416, wherein said first nucleic acid encodes a polypeptide which induces apoptosis.

²⁰⁶
421. (New) The polynucleotide of claim ¹⁹⁷416, further comprising a heterologous polynucleotide.

~~207~~
~~422~~

~~206~~
~~421~~

(New) The polynucleotide of claim ~~421~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

~~208~~
~~423~~

~~207~~
~~422~~

(New) The polynucleotide of claim ~~422~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

~~209~~
~~424~~

~~208~~
~~423~~

(New) The polynucleotide of claim ~~423~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

~~210~~
~~425~~

(New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~416~~ into a vector.

~~211~~
~~426~~

~~197~~
~~416~~

(New) A vector comprising the polynucleotide of claim ~~416~~.

~~212~~
~~427~~

~~211~~
~~426~~

(New) The vector of claim ~~426~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~213~~
~~428~~

~~197~~
~~416~~

(New) A host cell comprising the polynucleotide of claim ~~416~~.

~~214~~
~~429~~

~~213~~
~~428~~

(New) The host cell of claim ~~428~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

~~201~~
~~430~~

~~200~~
~~419~~

(New) A host cell comprising the polynucleotide of claim ~~419~~.

E1
Cont.

97

E

²⁰²
~~431~~. (New) The host cell of claim ²⁰¹~~430~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

²⁰³
~~432~~. (New) (**Non-Elected**) A method of using the host cell of claim ²⁰¹~~430~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

²⁰⁴
~~433~~. (New) A method of producing the polypeptide encoded by said first nucleic acid of claim ²⁰⁰~~419~~, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

²¹⁵
~~434~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

²¹⁶
~~435~~. (New) The polynucleotide of claim ²¹⁵~~434~~, wherein said nucleic acid encodes the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

E1
Cont

98

E

²¹⁷
~~436~~. (New) The polynucleotide of claim ²¹⁵~~434~~, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

²²¹
~~437~~. (New) The polynucleotide of claim ²¹⁵~~434~~, wherein said first nucleic acid encodes a polypeptide which induces apoptosis.

²²²
~~438~~. (New) The polynucleotide of claim ²¹⁵~~434~~, further comprising a heterologous polynucleotide.

²²³
~~439~~. (New) The polynucleotide of claim ²²²~~438~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

²²⁴
~~440~~. (New) The polynucleotide of claim ²²³~~439~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

²²⁵
~~441~~. (New) The polynucleotide of claim ²²⁴~~440~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

²²⁶
~~442~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ²¹⁵~~434~~ into a vector.

²²⁷
~~443~~. (New) A vector comprising the polynucleotide of claim ²¹⁵~~434~~.

E1
Cont.

99

F

²²⁸
~~444.~~ (New) The vector of claim ~~443~~²²⁷, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

²²⁹
~~445.~~ (New) A host cell comprising the polynucleotide of claim ~~444~~²¹⁵.

²³⁰
~~446.~~ (New) The host cell of claim ~~445~~²²⁹, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

²¹⁸
~~447.~~ (New) A host cell comprising the polynucleotide of claim ~~436~~²⁰⁷.

²¹⁹
~~448.~~ (New) The host cell of claim ~~447~~²¹⁸, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

²²⁰
~~449.~~ (New) **(Non-Elected)** A method of using the host cell of claim ~~447~~²¹⁸ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

²³¹
~~450.~~ (New) A method of producing a polypeptide encoded by the nucleic acid of claim ~~434~~²¹⁵, comprising:

(a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

100

E

E!
Cont.

²³²
~~451~~. (New) An isolated polynucleotide comprising 30 contiguous nucleotides of nucleotides 412 to 681 of SEQ ID NO:1; wherein said polynucleotide is usable as a probe for detecting the nucleic acid of SEQ ID NO:1, or the complement thereof.

²³³ ²³²
~~452~~. (New) The polynucleotide of claim ~~451~~, comprising 50 contiguous nucleotides of nucleotides 412 to 681 of SEQ ID NO:1.

²³⁷ ²³²
~~453~~. (New) The polynucleotide of claim ~~451~~, which encodes a polypeptide.

²³⁶ ²³²
~~454~~. (New) The polynucleotide of claim ~~451~~, further comprising a heterologous polynucleotide.

²³⁷ ²³⁶
~~455~~. (New) The polynucleotide of claim ~~454~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

E1
Cont.
²³⁸ ²³⁷
~~456~~. (New) The polynucleotide of claim ~~455~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

²³⁹ ²³⁸
~~457~~. (New) The polynucleotide of claim ~~456~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

²⁴⁰ ²³²
~~458~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~451~~ into a vector.

241

~~459~~

(New) A vector comprising the polynucleotide of claim ~~451~~.

232

242

~~460~~

(New) The vector of claim ~~459~~, wherein said polynucleotide is operably

241

associated with a heterologous regulatory sequence.

243

~~461~~

(New) A host cell comprising the polynucleotide of claim ~~451~~.

232

244

~~462~~

(New) The host cell of claim ~~461~~, wherein said isolated polynucleotide is

243

operably associated with a heterologous regulatory sequence.

235

~~463~~

(New) A method of producing the polypeptide encoded by the

polynucleotide of claim ~~453~~, comprising:

234

(a) culturing a host cell comprising said polynucleotide under conditions such

that said polypeptide is expressed; and

(b) recovering said polypeptide.

245

~~464~~

(New) An isolated polynucleotide comprising a nucleic acid encoding at

least 50 contiguous amino acids from 1 to 238 of SEQ ID NO:2;

wherein said at least 50 contiguous amino acids bind an antibody with specificity

for the polypeptide of amino acids 24 to 468 of SEQ ID NO:2.

246

~~465~~

(New) The polynucleotide of claim ~~464~~, wherein said nucleic acid

245

encodes a polypeptide comprising amino acids 132 to 221 of SEQ ID NO:2.

E1
Cont

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F

247
~~466~~

245
~~464~~

(New) The polynucleotide of claim ~~464~~, wherein said nucleic acid encodes a polypeptide comprising amino acids 35 to 92 of SEQ ID NO:2.

248
~~467~~

245
~~464~~

(New) The polynucleotide of claim ~~464~~, wherein said nucleic acid encodes a polypeptide comprising amino acids 114 to 160 of SEQ ID NO:2.

249
~~468~~

245
~~464~~

(New) The polynucleotide of claim ~~464~~, further comprising a heterologous polynucleotide.

250
~~469~~

249
~~468~~

(New) The polynucleotide of claim ~~468~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

251
~~470~~

250
~~469~~

(New) The polynucleotide of claim ~~469~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

252
~~471~~

251
~~470~~

(New) The isolated polypeptide of claim ~~470~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

253
~~472~~

245
~~464~~

(New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~464~~ into a vector.

254
~~473~~

245
~~464~~

(New) A vector comprising the polynucleotide of claim ~~464~~.

E1
Cont.

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E

255
474

254

(New) The vector of claim 473, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

256
475

255
464

(New) A host cell comprising the polynucleotide of claim 464.

257
476

256

(New) The host cell of claim 475, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

258
477

245

(New) A method of producing a polypeptide encoded by the nucleic acid of claim 464, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

259
478

(New) An isolated polynucleotide comprising a nucleic acid selected from the group consisting of:

- (a) a nucleic acid which encodes at least 30 contiguous amino acids from 169 to 240 of SEQ ID NO:2;
- (b) a nucleic acid which encodes at least 30 contiguous amino acids from 267 to 298 of SEQ ID NO:2; and
- (c) a nucleic acid which encodes at least 30 contiguous amino acids from 330 to 364 of SEQ ID NO:2;

101

E

E1
Cont.

wherein said at least 30 contiguous amino acids bind an antibody with specificity for the polypeptide of amino acids 24 to 468 of SEQ ID NO:2.

²⁶⁰
~~479~~. (New) The polynucleotide of claim ²⁵⁹~~478~~, wherein said nucleic acid is (a).

²⁶¹
~~480~~. (New) The polynucleotide of claim ²⁶⁰~~479~~, wherein said nucleic acid further comprises (b).

²⁶²
~~481~~. (New) The polynucleotide of claim ²⁵⁹~~478~~, wherein said nucleic acid is (b).

²⁶³
~~482~~. (New) The polynucleotide of claim ²⁵⁹~~478~~, wherein said nucleic acid is (c).

²⁶⁴
~~483~~. (New) The polynucleotide of claim ²⁵⁹~~478~~, further comprising a heterologous polynucleotide.

E1
Cont.
²⁶⁵
~~484~~. (New) The polynucleotide of claim ²⁶⁴~~483~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

²⁶⁶
~~485~~. (New) The polynucleotide of claim ²⁶⁵~~484~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

²⁶⁷
~~486~~. (New) The polynucleotide of claim ²⁶⁶~~485~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

²⁶⁸
~~487~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ²⁵⁹~~478~~ into a vector.

²⁶⁹
~~488~~. (New) A vector comprising the polynucleotide of claim ²⁵⁹~~478~~.

²⁷⁰
~~489~~. (New) The vector of claim ²⁶⁹~~488~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

²⁷¹
~~490~~. (New) A host cell comprising the polynucleotide of claim ²⁵⁹~~478~~.

²⁷²
~~491~~. (New) The host cell of claim ²⁷¹~~490~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

²⁷³
~~492~~. (New) A method of producing a polypeptide encoded by the nucleic acid of claim ²⁵⁹~~478~~, comprising:

- E1
Cont.
- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
 - (b) recovering said polypeptide.

²⁷⁴
493. (New) An isolated polynucleotide comprising a nucleic acid which hybridizes to the complement of nucleotides 88 to 732 of SEQ ID NO:1 under conditions comprising:

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- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC;
- wherein said nucleic acid encodes a polypeptide which binds TRAIL.

²⁷⁵
~~494~~. (New) The polynucleotide of claim ²⁷⁴~~493~~, further comprising a heterologous polynucleotide.

²⁷⁶
~~495~~. (New) The polynucleotide of claim ²⁷⁵~~494~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

²⁷⁷
~~496~~. (New) The polynucleotide of claim ²⁷⁶~~495~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

²⁷⁸
~~497~~. (New) The polynucleotide of claim ²⁷⁷~~496~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

²⁷⁹
~~498~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ²⁷⁸~~497~~ into a vector.

²⁸⁰
~~499~~. (New) A vector comprising the polynucleotide of claim ²⁷⁹~~498~~.

E!
Cont.

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E

²⁸¹
~~500.~~ (New) The vector of claim ²⁸⁰~~499~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

²⁸²
~~501.~~ (New) A host cell comprising the polynucleotide of claim ²⁷⁴~~493~~.

²⁸³
~~502.~~ (New) The host cell of claim ²⁸²~~501~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

²⁸⁴
503. (New) **(Non-Elected)** A method of using the host cell of claim ²⁸²~~501~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide a ligand, and detecting binding of said ligand to said polypeptide.

²⁸⁵
~~504.~~ (New) A method of producing the polypeptide encoded by said nucleic acid of claim ²⁷⁴~~493~~, comprising:

- E1
Cont.
- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
 - (b) recovering said polypeptide.

²⁸⁶
~~505.~~ (New) An isolated polynucleotide which hybridizes to nucleotides 412 to 681 of SEQ ID NO:1, or the complement thereof, under conditions comprising:

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E

(a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and

(b) washing at 65°C in a solution consisting of 0.1x SSC.

~~287~~ 506. (New) The polynucleotide of claim ~~286~~ 505, further comprising a heterologous polynucleotide.

~~288~~ 507. (New) A method of producing a vector comprising inserting the polynucleotide of claim ~~286~~ 505 into a vector.

~~289~~ 508. (New) A vector comprising the polynucleotide of claim ~~286~~ 505.

~~290~~ 509. (New) The vector of claim ~~289~~ 508, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~291~~ 510. (New) A host cell comprising the polynucleotide of claim ~~286~~ 505.

~~292~~ 511. (New) The host cell of claim ~~291~~ 510, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~293~~ 512. (New) An isolated polynucleotide comprising a nucleic acid encoding at least 30 contiguous amino acids of SEQ ID NO:2, wherein said nucleic acid is

operatively associated with one or more regulatory elements capable of directing translation of said at least 30 contiguous amino acids; and wherein said at least 30 contiguous amino acids bind an antibody with specificity for the polypeptide of amino acids 24 to 468 of SEQ ID NO:2.

²⁹⁴
~~513.~~ (New) The polynucleotide of claim ~~512~~²⁹³, further comprising a heterologous polynucleotide.

²⁹⁵
~~514.~~ (New) The polynucleotide of claim ~~513~~²⁹⁴, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

²⁹⁶
~~515.~~ (New) The polynucleotide of claim ~~514~~²⁹⁵, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

²⁹⁷
~~516.~~ (New) The isolated polypeptide of claim ~~515~~²⁹⁶, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

²⁹⁸
~~517.~~ (New) A method of producing a vector comprising inserting the polynucleotide of claim ~~512~~²⁹³ into a vector.

²⁹⁹
~~518.~~ (New) A vector comprising the polynucleotide of claim ~~512~~²⁹³.

E¹
Cont.

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E

³⁰⁰
~~519~~. (New) The vector of claim ²⁹⁹~~518~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

³⁰¹
~~520~~. (New) A host cell comprising the polynucleotide of claim ²⁹³~~512~~.

³⁰²
~~521~~. (New) The host cell of claim ³⁰¹~~520~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

³⁰³
~~522~~. (New) A method of producing a polypeptide encoded by the nucleic acid of claim ²⁹³~~512~~, comprising:

- E1
Cont.
- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
 - (b) recovering said polypeptide.